

Name _____

Hour _____

Module 4: Review and Assessment - NO CALCULATOR!!**Operations with Fractions.****Make sure all answers are in simplest form. (2 points each)****Add.**

$$\begin{array}{r} 1) \ 9\frac{3}{4} \\ + \ 4\frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 2) \ 7\frac{3}{5} \\ + \ 5\frac{3}{10} \\ \hline \end{array}$$

Subtract.

$$\begin{array}{r} 3) \ 20\frac{8}{12} \\ - \ 8\frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 4) \ 12\frac{2}{9} \\ - \ 5\frac{2}{3} \\ \hline \end{array}$$

Multiply.

$$5) \ 2\frac{1}{5} \bullet 4$$

$$6) \ 3\frac{1}{2} \bullet \frac{3}{5}$$

Divide.

$$7) \ 5\frac{1}{3} \div 2\frac{1}{2}$$

$$8) \ 6 \div 3\frac{2}{3}$$

Integers**Evaluate. (1 point each)**

$$9) \ -5 \bullet -11$$

$$10) \ -33 - 10$$

$$11) \ \frac{-50}{10}$$

$$12) \ -22 + 45$$

Evaluating Expressions with Rational & Irrational Numbers.**Estimate your square roots to the tenths place and then evaluate each expression. (2 points each)**

$$13) \ (\sqrt{24})^2$$

$$14) \ 9 + 2\sqrt{26}$$

Module 4: Review and Assessment - CALCULATOR ALLOWED

Identifying Rational and Irrational Numbers

Tell whether each number is rational or irrational. *EXPLAIN* your answer. (2 points each)

15) $4\frac{1}{3}$

16) $\sqrt{13}$

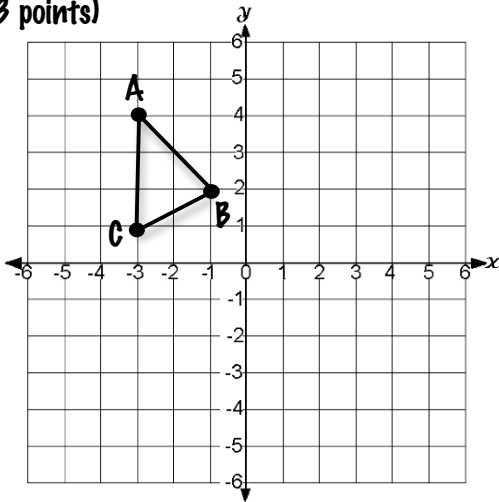
17) 12

18) $\sqrt{100}$

Transformations

Reflections

19) Reflect the triangle ABC over the x-axis. (3 points)



20) If the following three points were reflected over the y-axis, what would the new points be? (1 pt. each)

W (5, 7)

X (5, 1)

Y (-1, 3)

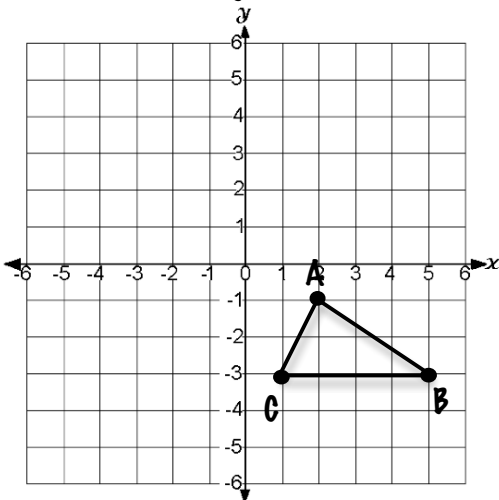
W^1 :

X^1 :

Y^1 :

Translations

21) Translate Triangle ABC four units left and three units up. (3 points)



22) Write the algorithm (mathematical rule) for the translation. (2 points)

23) Give the ordered pairs for the new points. (1 pt each)

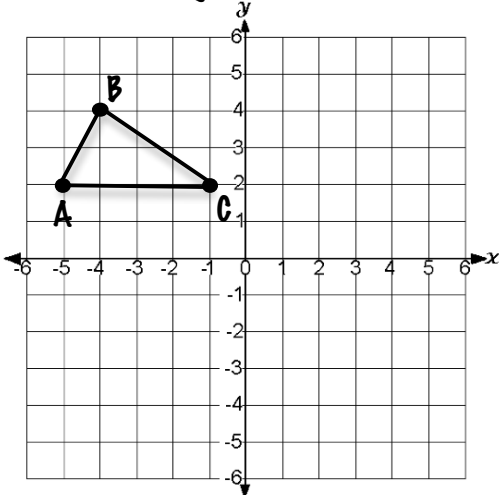
A^1 :

B^1 :

C^1 :

Rotations

24) Rotate triangle ABC 90° clockwise. (3 points)



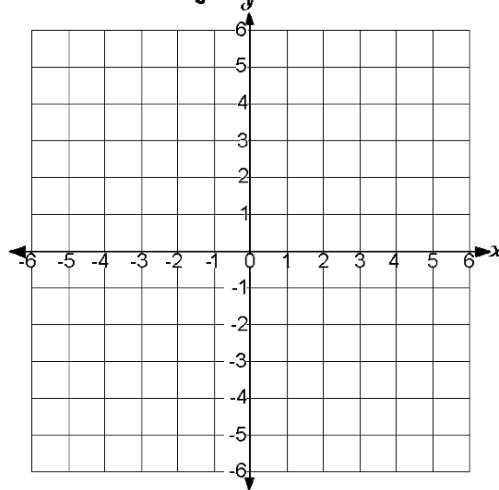
25) Write the coordinates for the rotated triangle. (1 pt each)

A^1 :

B^1 :

C^1 :

26) Rotate triangle ABC 180° clockwise. (3 points)



27) Write the coordinates for the rotated triangle. (1 pt each)

A^1 :

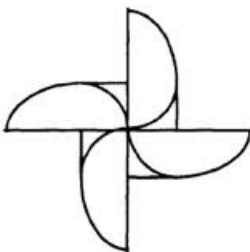
B^1 :

C^1 :

Rotational Symmetry

Tell whether each figure appears to have rotational symmetry. If the figure has rotational symmetry, give the minimal rotational symmetry and tell what other rotational symmetries it has. (4 points each)

28)



Circle one: Yes OR No

Minimum rotation:

Other symmetries:

29)

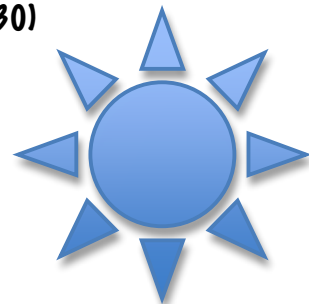


Circle one: Yes OR No

Minimum rotation:

Other symmetries:

30)



Circle one: Yes OR No

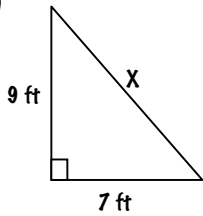
Minimum rotation:

Other symmetries:

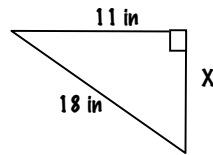
Using the Pythagorean Theorem

For each right triangle, find the unknown side length. Round answers to the nearest hundredth. (3 points each)

31)

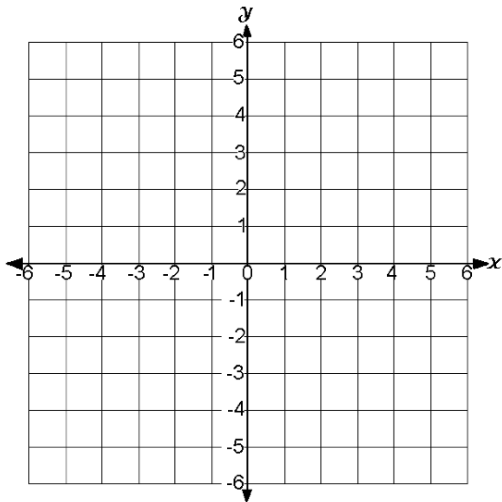


32)



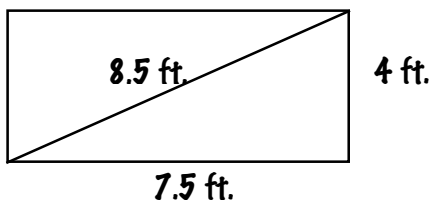
33) Mrs. Koenig is walking her dogs to the park. She leaves her house and walks 6 blocks west. Then she walks 4 blocks south. What is the distance between her house and the park?

35) Plot the points $(-3, 5)$ and $(2, -1)$.



36) Find the distance between the plotted pairs. (1 pt each)

37) Edgar wants to plant a rectangular garden in his backyard. If he uses the measurements shown in the diagram, will his garden be rectangular? Explain why or why not.



37) Find the length of the diagonal. Dimension of rectangle: length 12 cm, width 5 cm, height 7 cm

